

SALTON SEA ADVISORY COMMITTEE MEETING

January 14, 2005

9:30 – 3:30

Sacramento, CA

Welcome and Introductions

Mike Chrisman, Secretary for Resources, welcomed the Advisory Committee members and led introductions of those present (see attached list).

Updates from the Resources Secretary

Secretary Chrisman reviewed the agenda for the day's meeting. The next Advisory Committee Meeting will be held on March 16, 2005 in Los Angeles. An air quality presentation and an overview of the Colorado River Basin Salinity Control Forum's efforts will be provided at the March meeting.

Public Comments

No public comments were provided.

Update on Project Schedule

Gwen Buchholz (CH2MHILL) noted that the administrative draft Alternative Concept Report has been completed and provided to Advisory Committee members. The air quality work plan and two air quality technical memoranda were completed and distributed to the local air quality districts and the Air Resources Board. Comments from these agencies are being incorporated. Advisory Committee members should provide any comments on the air quality materials via the Committee's e-mail reflector (salton_sea@water.ca.gov). The next phase of the project will include the selection of a reasonable range of alternatives and the preparation of a feasibility study.

Jeanine Jones, Department of Water Resources (DWR), indicated that DWR has received four sets of comments on the partial initial draft No Action Alternative report. Additional comments on the report should be submitted to the Committee's e-mail reflector (salton_sea@water.ca.gov) by the end of January.

Update on Fish Sampling Program

Kim Nicol, Department of Fish and Game (DFG), provided an update on the status of DFG's fish monitoring at the Salton Sea. Tilapia were found during the recent, Fall 2004 sampling event, but no corvina, croaker or sargo were found. The number of tilapia found during the sampling is less than was found in the 1999 sampling event; however, the number found is greater than both the Fall 2002 and Fall 2003 sampling events.

Ms. Nicol noted that DFG anticipates conducting spring surveys for corvina, croaker and sargo using hydroacoustic equipment.

A member of the Advisory Committee requested to be provided with the data from the 1999 sampling event.

Development of Conceptual Alternatives

Ms. Buchholz provided an overview of the development of the conceptual alternatives. Preliminary screening criteria were developed to broadly mirror the project goals and objectives. All of the alternatives proposed in prior and other on-going studies were compiled and grouped based on their similarities. The preliminary screening criteria were then applied to the resulting 27 groups of alternatives to illustrate how a final screening would be carried out in coordination with the Committee.

Under this illustrative example, the following groups were retained for further analysis: North or South Lake (with and without elevation control), Concentric Waterways, and Evolving Sea with Managed Habitat. The Evolving Salton Sea alternative would include restoration and enhancement actions conducted adjacent to the Salton Sea while allowing the shoreline to decline and salinity to increase. Ms. Buchholz noted this preliminary “straw-person” analysis was conducted for the purposes of discussion only. Comments received at the meeting and via the Committee’s e-mail reflector will be used to refine the conceptual alternatives for the Committee's March meeting.

Some Advisory Committee members expressed concerns with the approach for determining variability of future inflows to the Salton Sea (discussed at the November 30, 2004 Advisory Committee meeting for the No Action Alternative). Other No Action Alternative comments received covered the selenium, air quality, and population projection subject areas. As noted in the partial draft No Action Alternative description provided to the Committee, additional work on the air quality, selenium, and avian resources subject areas is ongoing and will be incorporated into the No Action Alternative as it is completed. A technical committee meeting or meetings will be scheduled to go over comments on these subject areas; the selenium and air quality topics will be scheduled based on the progress of the ongoing work.

“Building Block” Components of Alternatives

Ms. Buchholz provided an overview of the building block components of the alternatives. It was noted that the alternatives will consist of a series of components, such as infrastructure components (i.e. displacement dikes, in-sea barrier), and fish and wildlife habitat components (i.e. different habitat types). Different combinations of components will be used to formulate the various alternatives. Using these building block components will allow for flexibility in developing the alternatives and project phasing.

Discussion of the building block concept and components included the following:

- The following components should be added: further research and characterization of the Salton Sea, including hydrology, soils, and geomorphology; continuation of on-going research and monitoring activities; sustainability; economic opportunities (“do no harm” or “improve” criteria should be used); climate protection (protection of the microclimate created by proximity to the Salton Sea); disease response; and, adaptive management. Additionally, the selenium and water treatment component should be changed to water quality. The need for long-term monitoring was emphasized.
- It was noted that some of the actions envisioned within a specific component may not be feasible. Additional analysis and screening will be needed to determine feasibility of these actions.

Fish and Wildlife Components of Alternatives

Rob Thomson of CH2MHILL provided an overview of the fish and wildlife component. Mr. Thomson noted that the fish and wildlife objectives of the project are driven by legislative mandates, and described DFG’s policy and vision for the Salton Sea. He indicated that targeting historic levels of species abundance may not be appropriate. Instead the focus should be on maximizing fish and wildlife values of each alternative. The legislation identifies that the preferred alternative shall provide to the “maximum feasible attainment” the “restoration of long-term stable aquatic and shoreline habitat for the historic level and diversity of fish and wildlife that depend on the Salton Sea.” The target species and population numbers have not been determined at this time; however, it was noted that the project will strive for more than the minimum population needed to maintain genetic diversity. CH2MHILL is evaluating use of the Point Reyes Bird Observatory model related to this effort.

An overview of the habitat types at the Salton Sea was provided and general engineering (structural) and water quality considerations that may be needed to develop and sustain the various habitats was presented. It was noted that nutrients are also a key water quality consideration for the different habitat types. Additionally, it was noted that a distinction should be made between fresh, brackish and salt water habitat types. There was discussion of habitat types used by different bird species.

Selenium Treatment Components of Alternatives

Salton Sea Selenium Data:

Doug Barnum, USGS Salton Sea Science Office, provided a status update and preliminary results of the sampling for selenium and organic matter in shallow sediments in the Salton Sea. Approximately 195 core samples collected from prior sediment studies and sampling events were analyzed for selenium and organic matter content. Based on the preliminary analysis, higher selenium levels correlate well with higher organic matter content. This correlation can be used to determine selenium

levels for areas where the organic material content is known, but selenium analysis has not been conducted. Additionally, Dr. Barnum noted that higher selenium and organic material content is generally correlated with smaller sediment particle sizes.

Based on the results of the analysis, high selenium and organic matter content was found near the Whitewater River delta. It is unknown why this occurs, but Dr. Barnum noted that it may be a result of water currents. It was asked to what extent selenium is present in the Coachella Valley groundwater basin and in Whitewater River inflows to the sea. Various Committee members expressed concern about the level of uncertainty regarding the distribution of selenium at the Salton Sea, and some members suggested continuing with the core sample analysis as well as collecting additional samples, especially biological samples (e.g. fish tissue). However, it was noted that the existing correlation between organic matter and selenium may be sufficient and additional analysis may not be needed. In addition, it was noted that analysis of the remaining core samples will not determine why high selenium levels were recorded near the Whitewater River delta.

The existing analysis was conducted with sediment samples taken from shallow water areas; however, there may be value in analyzing sediment samples from deep water areas. In addition to looking at deep water sediments, it was suggested that analysis be conducted on deeper sediments (deeper than 6-inches) because these sediments may be dredged and/or disturbed during construction activities.

Jeanine Jones with DWR noted that bench-scale testing will be conducted to obtain information on possible changes in water-column selenium concentrations under future water quality conditions in which nutrient loading might be reduced.

Update on Selenium Criteria:

Harry Ohlendorf of CH2MHILL provided an update on the U.S. Environmental Protection Agency's (EPA) proposed selenium criteria. The proposed criteria were published in the Federal Register in mid-December for a 120-day public review period. The criteria are based on fish tissue concentration rather than water-borne concentrations. EPA is also working with other state and federal regulatory agencies to develop criteria to protect wildlife within California.

Selenium Treatment Options:

Charles Phillips of SAIC provided an overview of the rationale and approach for evaluating selenium treatment options. Selenium treatment should be evaluated in the context of the larger program and one or more treatment technologies and/or treatment locations may be needed. The project is anticipated to take an integrated treatment approach, and consider selenium treatment in the context of overall water treatment.

In the discussion, it was suggested that selenium source control in the Upper Basin be considered. Source control in Imperial Valley agricultural drains, the limitations of prior

studies in the valley, and the constraints to conducting new studies were also discussed. The history of the Colorado River Salinity Control Forum's involvement with selenium was briefly discussed. It was also pointed out that mitigation requirements for the QSA water transfers include some Imperial Valley agricultural drain sampling for selenium.

Jeanine Jones noted that DWR is working with CH2MHILL, the Salton Sea Science Office, and others to determine water quality and selenium data gaps and develop additional information to fill those data gaps.

Salton Sea Infrastructure / Water Management Components

Ms. Buchholz provided an overview of the water infrastructure component. This component includes physical facilities such as pipelines, canals, barriers, and pumping plants, but does not include water treatment (which is a separate component). The current analysis is conceptual in nature and design of infrastructure components has not been initiated.

Seasonal inflow variations need to be considered in the development and design of infrastructure and treatment components. Seasonal variations in inflow water quality should also be considered in the development and design because variations can affect sizing of components and materials used. Any available information on seasonal water quality variations or suggested information sources should be sent to the Committee's e-mail reflector. A member asked that explicit consideration be given to climate change impacts.

Ms. Buchholz presented six initial concepts for water infrastructure for the Advisory Committee's consideration. Water treatment and sale to others is a conceptual idea only that has been raised in prior studies by others; no specific treatment providers or buyers for this water have been identified. As part of the discussions, it was noted that constructability may be a concern as most of the larger water infrastructure components will be constructed in areas that are currently inundated. The need to phase the project to protect existing flora and fauna was identified. It was noted that data on pumping and filtering Salton Sea water may be available from the solar pond tests.

Ms. Buchholz noted that a series of public meetings will be held in the Salton Sea watershed to discuss alternative concepts, component categories, and development of the alternatives, prior to the Committee's March meeting. It was suggested that background information be made available on the internet prior to the public meetings.

Other Components

Ms. Buchholz provided an overview of other components that may need to be addressed, and noted that climate change will be addressed in the cumulative impacts section of the environmental documentation.

Salton Sea Authority Request for State Bond Funds

Ron Enzweiler, Salton Sea Authority (SSA) Executive Director, provided an update on the SSA's revised request for \$9.5 million in State bond funds (list of projects from November meeting included with handouts). SSA, DWR, and Wildlife Conservation Board (WCB) met following the November Committee meeting and made the following determinations:

- SSA will present Project #1, Evaluate New River and Torrez Martinez Wetlands, to the Wildlife Conservation Board for potential Proposition 50 funding at an upcoming WCB meeting.
- DWR will prepare an interagency agreement to fund SSA to carry out Project #2, Install and Operate Selenium Removal Pilot Unit.
- SSA has an existing letter agreement with DWR to carry out Project #4, Recreation and Socioeconomic Study, using previously appropriated General Funds.
- Projects #3, Design for In-Sea Barrier, and #5, Project-level Environmental Impact Study/Environmental Impact Report go beyond the programmatic level of analysis authorized by legislation.
- Project #6, Interim Algae and Odor Control and other actions, is being conducted as part of Quantification Settlement Agreement mitigation and other actions.

Mr. Enzweiler noted that the SSA and the USGS Science Office will no longer have the same relationship as they had in the past. The SSA thanked the Science Office for its efforts.

Wrap Up / Future Meetings

The next Advisory Committee meeting will be held on March 16, 2005 in Los Angeles.

Handouts

Copies of the following presentations and related materials:

- Status of Project Schedule
- Development of Conceptual Alternatives
- Alternatives Considered in Previous Investigations
- Building Block Components
- Fish and Wildlife Components of Alternatives
- Selenium and Organic Matter in Shallow Sediments of the Salton Sea
- Selenium Management
- Water Infrastructure Components

- Complementary/Parallel Activities to be Performed by SSA for Advancing Salton Sea Restoration Project (dated 11/22/04)
- Air Quality Work Plan Outline
- Air Quality Data Gaps Analysis
- Air Quality - Identify Potential Emissions Sources, Significant Criteria and Analytical Tools and Methods
- Figures for the Administrative Draft Alternative Concepts Report

ATTENDANCE

Advisory Committee Members or Alternates Present:

Fred Cagle, Sierra Club
Celeste Cantu, State Water Resources Control Board
Michael Cohen, Pacific Institute
Kim Delfino, Defenders of Wildlife
Bill DuBois, California Farm Bureau Federation
Elston Grubaugh, Imperial Irrigation District
Bob Ham, Imperial Valley Association of Governments
Rick Hoffman, Riverside County
Gary Johnson, Regional Water Quality Control Board
Al Kalin, Imperial County Farm Bureau
Julia Levin, Audubon California
Al Loya, Torres-Martinez Desert Cahuilla Indians
Eugenia McNaughton, U.S. Environmental Protection Agency
Sylvia Oey, Air Resources Board
Larry Purcell, San Diego County Water Authority
Steve Robbins, Coachella Valley Water District
Vincent Signorotti, Geothermal Energy Association
Dennis Underwood, The Metropolitan Water District of Southern California
Mike Walker, U.S. Bureau of Reclamation
Dan Walsworth, U.S. Fish and Wildlife Service
Gary Wyatt, Imperial County